

Appl. No. 10/532,626

Amdt dated November 28, 2006

Reply to FINAL Office action of September 25, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-7. (Cancelled)

8. **(Previously presented)** A fuel injection device for internal combustion engines, comprising,
a control chamber (2),
a control valve (6) having first, second and third valve positions, the control valve (6)
being located between a high-pressure side (5) and a low-pressure side (7) and being operable
to open or block the communication of the control chamber (2) with the low-pressure side (7),
an outlet throttle (8) located between the control valve (6) and the low-pressure side (7),
and
means (13) moving the control valve (6) between its first, second and third positions
the control valve (6) blocking the communication of the control chamber (2) with the
low-pressure side (7) in its first position, the control chamber (2) communicating with the low-
pressure side (7) via a first outlet conduit (14) when the control valve (6) is in its second position,
and the control chamber (2) communicating with the low-pressure side (7) via a second outlet
conduit (16) having an outlet throttle (15) when the control valve (6) is in its third position.

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9. **(Previously presented)** The fuel injection device of claim 8, wherein the outlet throttle (15) of the second outlet conduit (16) has a higher throttle resistance than the outlet throttle (8) on the low-pressure side.
10. **(Previously presented)** The fuel injection device of claim 8, wherein in the second valve position, the control chamber (2) communicates with the low-pressure side (7) via the second outlet conduit (16) as well.
11. **(Previously presented)** The fuel injection device of claim 9, wherein in the second valve position, the control chamber (2) communicates with the low-pressure side (7) via the second outlet conduit (16) as well.
12. **(Previously presented)** The fuel injection device of claim 8, wherein the control valve (6) is embodied as a double seat valve, with a valve body (9) that is axially adjustable in a valve chamber (10) between two valve seats (11, 12), and one valve seat (11) communicates with the first outlet conduit (14), the other valve seat (12) communicates with the low-pressure side (7), and the valve chamber (10) communicates with the second outlet conduit (16).

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13. **(Previously presented)** The fuel injection device of claim 9, wherein the control valve (6) is embodied as a double seat valve, with a valve body (9) that is axially adjustable in a valve chamber (10) between two valve seats (11, 12), and one valve seat (11) communicates with the first outlet conduit (14), the other valve seat (12) communicates with the low-pressure side (7), and the valve chamber (10) communicates with the second outlet conduit (16).

14. **(Previously presented)** The fuel injection device of claim 10, wherein the control valve (6) is embodied as a double seat valve, with a valve body (9) that is axially adjustable in a valve chamber (10) between two valve seats (11, 12), and one valve seat (11) communicates with the first outlet conduit (14), the other valve seat (12) communicates with the low-pressure side (7), and the valve chamber (10) communicates with the second outlet conduit (16).

15. **(Previously presented)** The fuel injection device of claim 11, wherein the control valve (6) is embodied as a double seat valve, with a valve body (9) that is axially adjustable in a valve chamber (10) between two valve seats (11, 12), and one valve seat (11) communicates with the first outlet conduit (14), the other valve seat (12) communicates with the low-pressure side (7), and the valve chamber (10) communicates with the second outlet conduit (16).

16. (Currently amended) A fuel injection device for internal combustion engines, comprising,

a control chamber (2),

a control valve (6) having first, second and third valve positions, the control valve (6) being located between a high-pressure side (5) and a low-pressure side (7) and being operable to open or block the communication of the control chamber (2) with the low-pressure side (7),

an outlet throttle (8) located between the control valve (6) and the low-pressure side (7), and

means (13) moving the control valve (6) between its first, second and third positions the control valve (6) blocking the communication of the control chamber (2) with the low-pressure side (7) in its first position, the control chamber (2) communicating with the low-pressure side (7) via a first outlet conduit (14) when the control valve (6) is in its second position, and the control chamber (2) communicating with the low-pressure side (7) via a second outlet conduit (16) having an outlet throttle (15) when the control valve (6) is in its third position. **The fuel injection device of claim 8;** wherein the control chamber (2) is connected to the high-pressure side (5) via an inlet throttle (4), which has a lesser throttle resistance than the outlet throttle (15) of the second outlet conduit (16).

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17. **(Previously presented)** The fuel injection device of claim 9, wherein the control chamber (2) is connected to the high-pressure side (5) via an inlet throttle (4), which has a lesser throttle resistance than the outlet throttle (15) of the second outlet conduit (16).
18. **(Previously presented)** The fuel injection device of claim 10, wherein the control chamber (2) is connected to the high-pressure side (5) via an inlet throttle (4), which has a lesser throttle resistance than the outlet throttle (15) of the second outlet conduit (16).
19. **(Previously presented)** The fuel injection device of claim 12, wherein the control chamber (2) is connected to the high-pressure side (5) via an inlet throttle (4), which has a lesser throttle resistance than the outlet throttle (15) of the second outlet conduit (16).
20. **(Withdrawn)** The fuel injection device of claim 8, wherein the first outlet conduit (14) is connected to the high-pressure side (5) via an inlet throttle (18).
21. **(Withdrawn)** The fuel injection device of claim 9, wherein the first outlet conduit (14) is connected to the high-pressure side (5) via an inlet throttle (18).
22. **(Withdrawn)** The fuel injection device of claim 10, wherein the first outlet conduit (14) is connected to the high-pressure side (5) via an inlet throttle (18).

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23. **(Withdrawn)** The fuel injection device of claim 12, wherein the first outlet conduit (14) is connected to the high-pressure side (5) via an inlet throttle (18).

24. **(Withdrawn)** The fuel injection device of claim 16, wherein the first outlet conduit (14) is connected to the high-pressure side (5) via an inlet throttle (18).

25. **(Previously presented)** The fuel injection device of claim 12, wherein the means moving the valve body (9) between the first, second and third valve positions comprises a piezoelectric actuator (13).

26. **(Previously presented)** The fuel injection device of claim 16, wherein the means moving the valve body (9) between the first, second and third valve positions comprises a piezoelectric actuator (13).

27. **(Cancelled)**

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28. (New) A fuel injection device for internal combustion engines, comprising,
a control chamber (2),
a control valve (6) having first, second and third valve positions, the control valve (6)
being located between a high-pressure side (5) and a low-pressure side (7) and being operable
to open or block the communication of the control chamber (2) with the low-pressure side (7),
an outlet throttle (8) located between the control valve (6) and the low-pressure side (7),
and
means (13) moving the control valve (6) between its first, second and third positions
the control valve (6) blocking the communication of the control chamber (2) with the
low-pressure side (7) in its first position, the control chamber (2) communicating with the low-
pressure side (7) via a first outlet conduit (14) when the control valve (6) is in its second position,
and the control chamber (2) communicating with the low-pressure side (7) via a second outlet
conduit (16) having an outlet throttle (15) when the control valve (6) is in its third position, so
that thus, when the control valve (6) is in its third position, fuel flows from the control chamber
(2) to the low-pressure side (7) through the second outlet conduit (16) and its outlet throttle (15).